

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11089 - L2 Version 2  
Chandra X-Ray Center

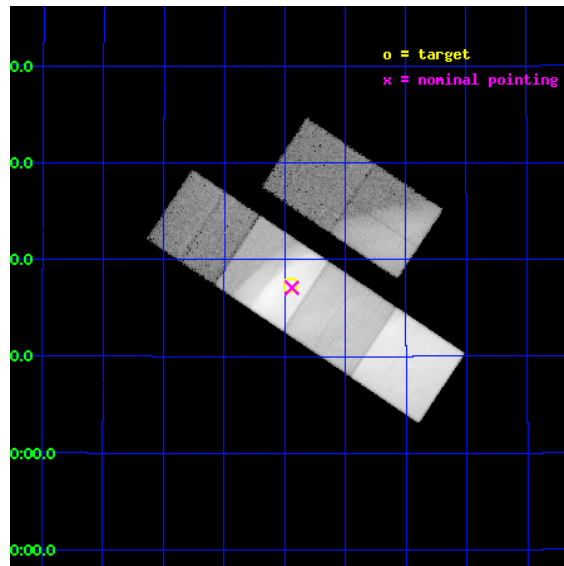
L2 Processing Date : Jun 12 2012

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# 1 Front

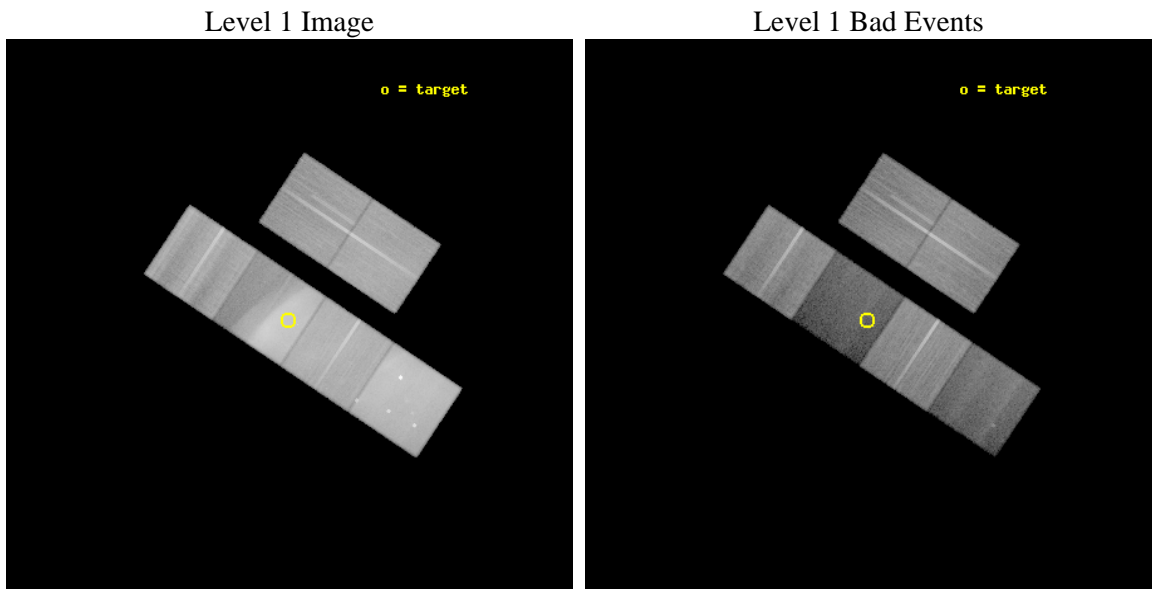
seq_num	501179	Sequence number
obs_id	11089	Observation id
title	The First X-Ray Expansion Measurements of the Cygnus Loop	Proposal
observer	Dr. Satoru Katsuda	Principal investigator
object	Cygnus Loop NE Rim re-visited	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	313.612708	Observer's specified target RA [deg]
dec_targ	32.289439	Observer's specified target Dec [deg]
ra_nom	313.610315823	Nominal RA [deg]
dec_nom	32.285032251197	Nominal Dec [deg]
roll_nom	213.68662754732	Nominal Roll [deg]
revision	2	Processing version of data
ontime	41174.399846673	Sum of GTIs [s]
livetime	40653.024803567	Livetime [s]
ontime2	41174.399846673	Sum of GTIs [s]
ontime3	41167.917835593	Sum of GTIs [s]
ontime5	41174.399846673	Sum of GTIs [s]
ontime6	41174.399846673	Sum of GTIs [s]
ontime7	41174.399846673	Sum of GTIs [s]
ontime8	41174.399846673	Sum of GTIs [s]
l2events	1482302	Number of level 2 events



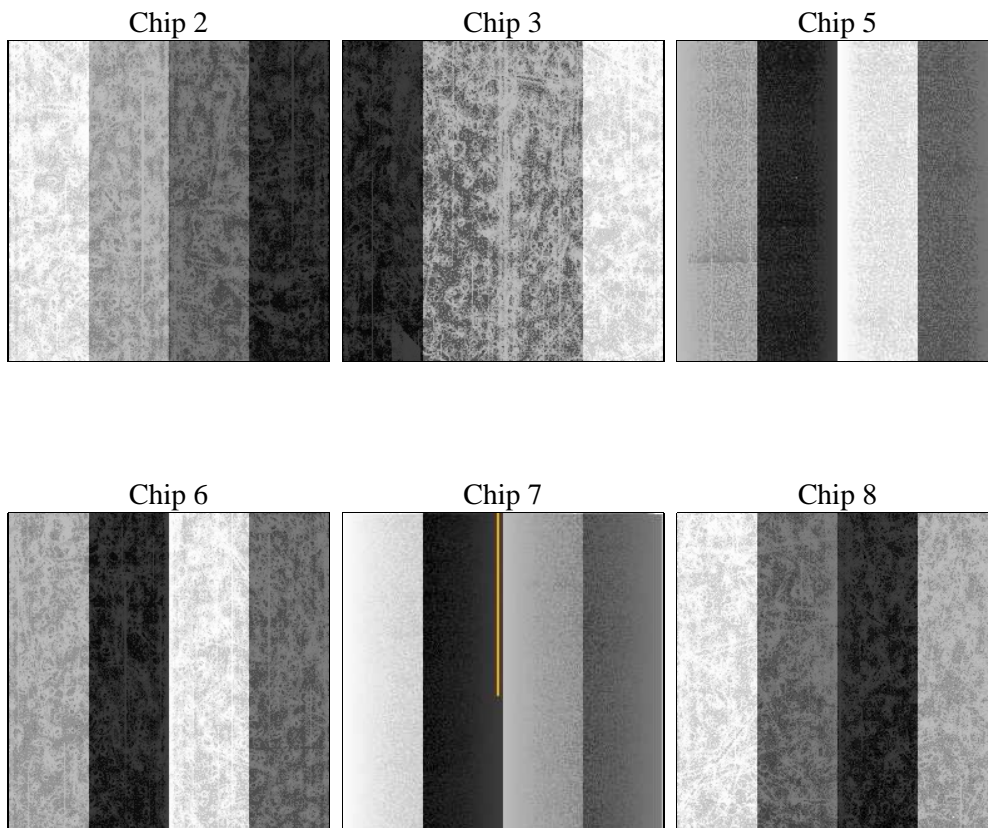
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	41000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	41174.399846673	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime2	41174.399846673	Sum of GTIs [s]
date	2012-06-12T15:04:27	Date and time of file creation	ontime3	41167.917835593	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	41174.399846673	Sum of GTIs [s]
			ontime6	41174.399846673	Sum of GTIs [s]
			ontime7	41174.399846673	Sum of GTIs [s]
			ontime8	41174.399846673	Sum of GTIs [s]
			l1events	3013576	Number of level 1 events

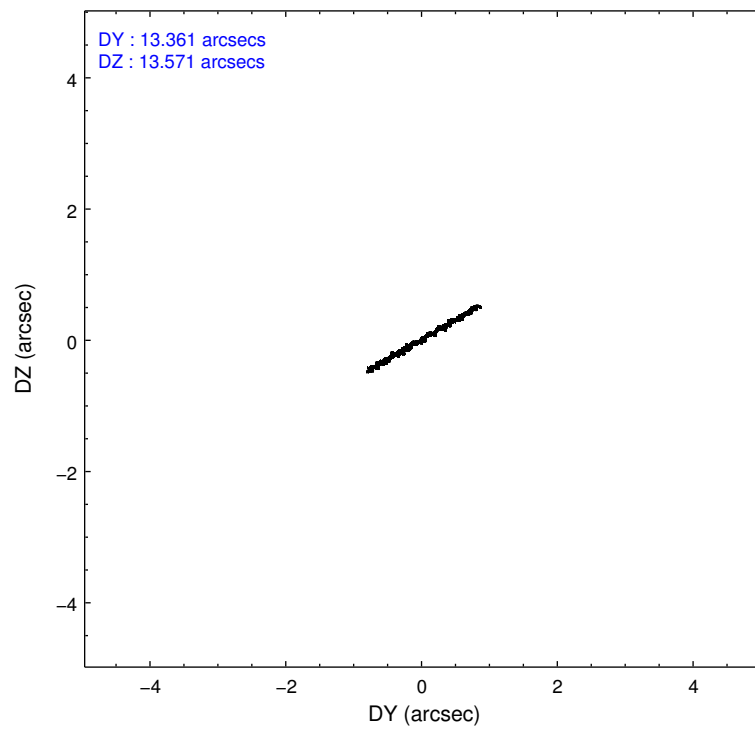
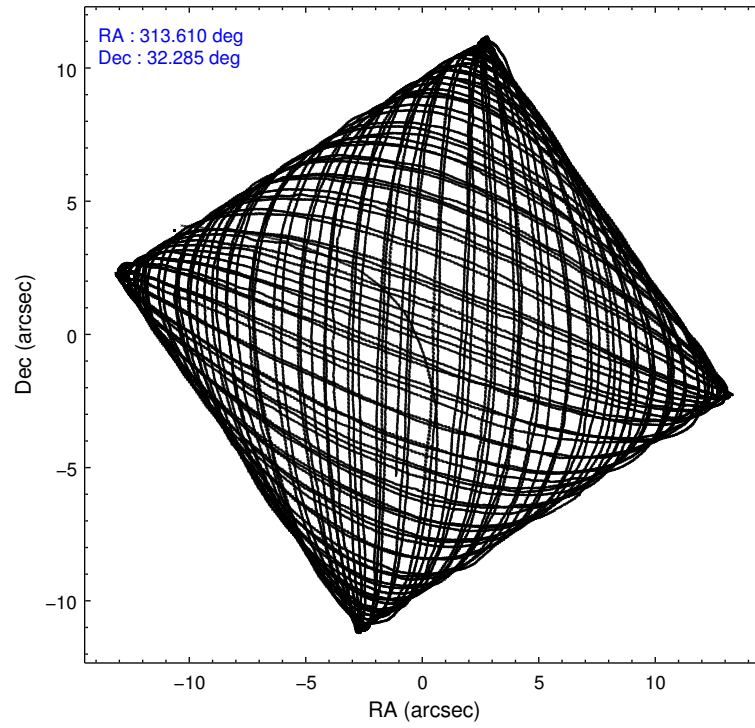
### 2.1.4 Events

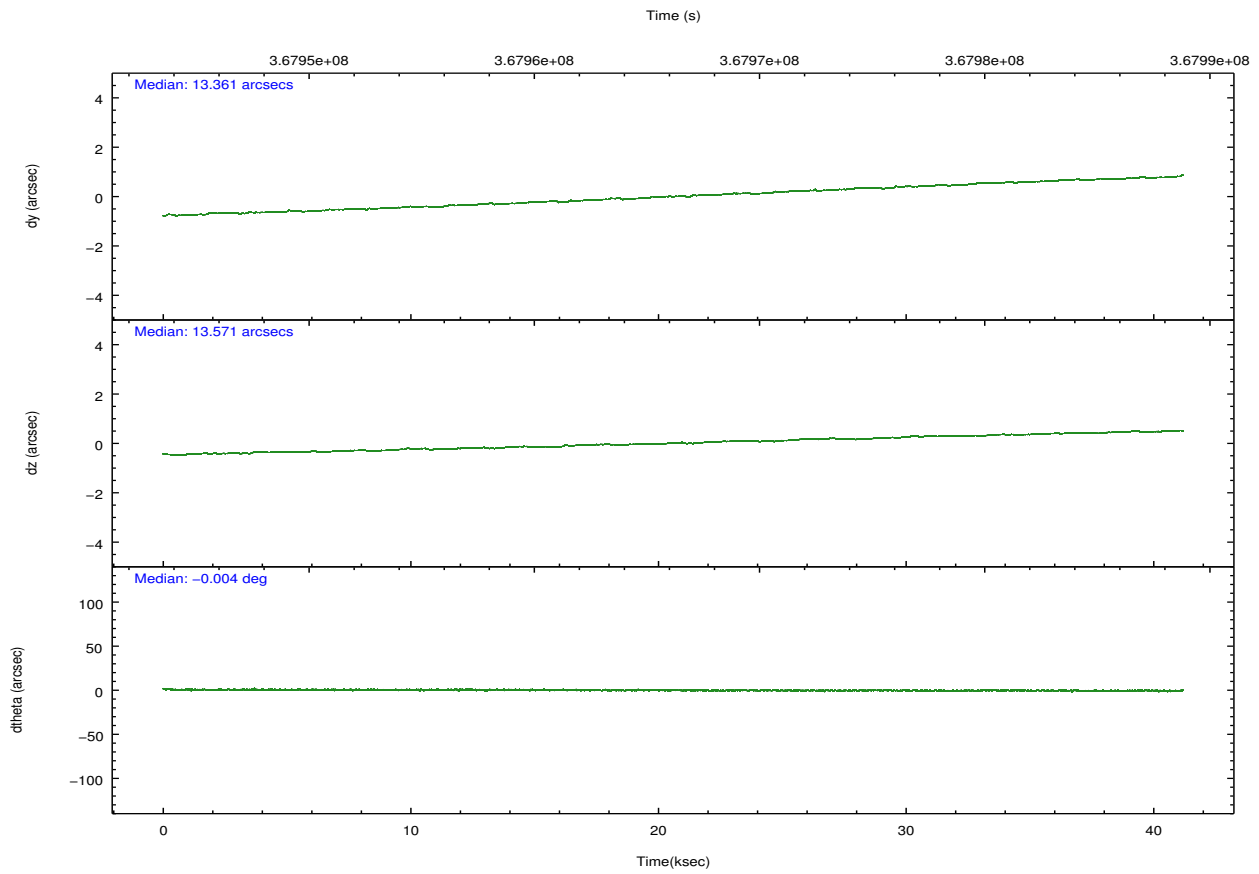
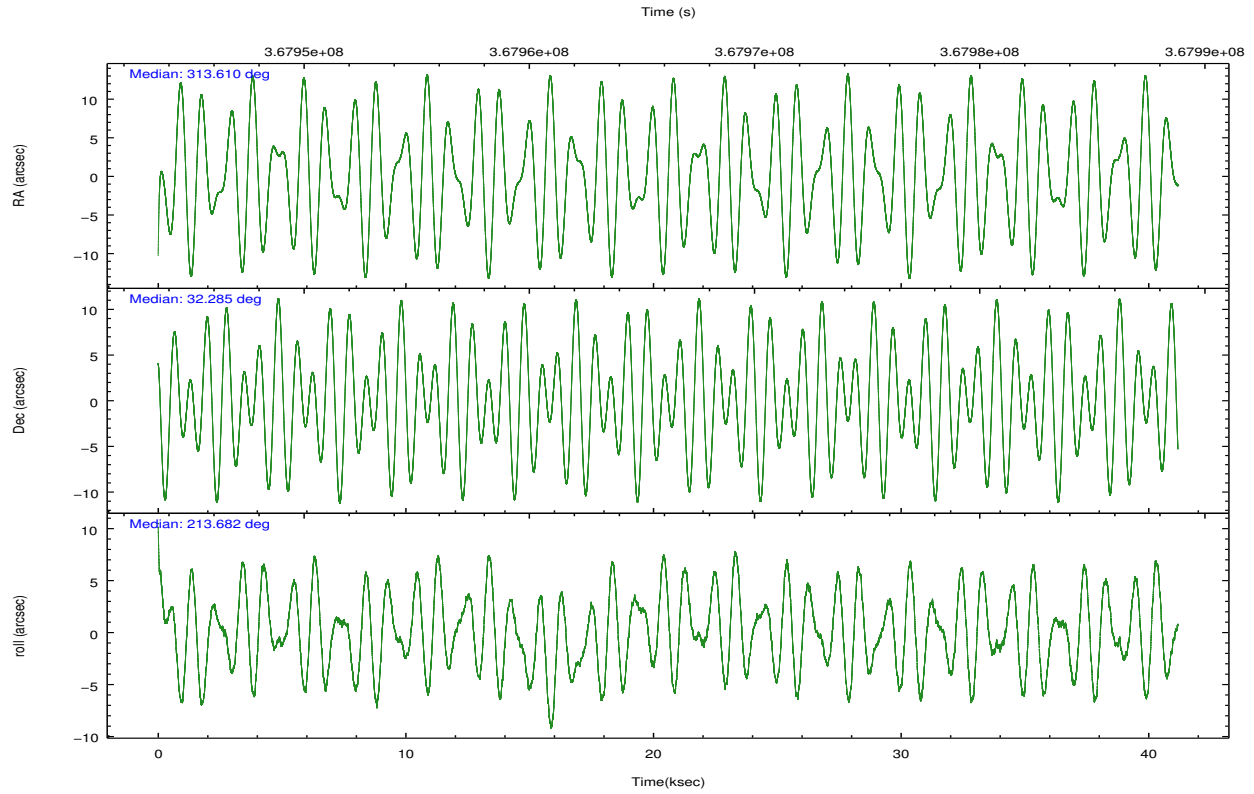
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	416711	301354	766124	559948	589615	379824	grade 0 events	73434	11512	285681	230672	189378	31291
rejected events	322744	275964	127252	295327	91914	276860		17%	3%	37%	41%	32%	8%
rejected %	77%	91%	16%	52%	15%	72%	grade 1 events	565	183	1122	1299	671	358
								0%	0%	0%	0%	0%	0%
							grade 2 events	10793	5578	168889	19814	126842	25171
								2%	1%	22%	3%	21%	6%
							grade 3 events	3546	2820	45380	5451	53695	11476
								0%	0%	5%	0%	9%	3%
							grade 4 events	3616	2761	44910	5511	52309	10352
								0%	0%	5%	0%	8%	2%
							grade 5 events	5463	6290	26289	7249	22506	11312
								1%	2%	3%	1%	3%	2%
							grade 6 events	4234	4024	102894	5661	82652	28387
								1%	1%	13%	1%	14%	7%
							grade 7 events	315060	268186	90959	284291	61562	261477
								75%	88%	11%	50%	10%	68%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	313.624261	313.6103158230044	CCD I2 on	Y	Y
[deg] Pointing Dec	32.309710	32.28503225119657	CCD I3 on	Y	Y
[deg] Pointing Roll	213.522546	213.6866275473192	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.145094680475	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01257209746719923	CCD S4 on	O1	Y
[s] Observation start time (MET)	367945745.184000	367944013.6955	CCD S5 on	N	N
Observation start date	2009-08-29T15:07:59	2009-08-29T14:40:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	367986745.184000	367988112.78521	On-chip summing requested	N	N
Observation end date	2009-08-30T02:31:19	2009-08-30T02:55:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



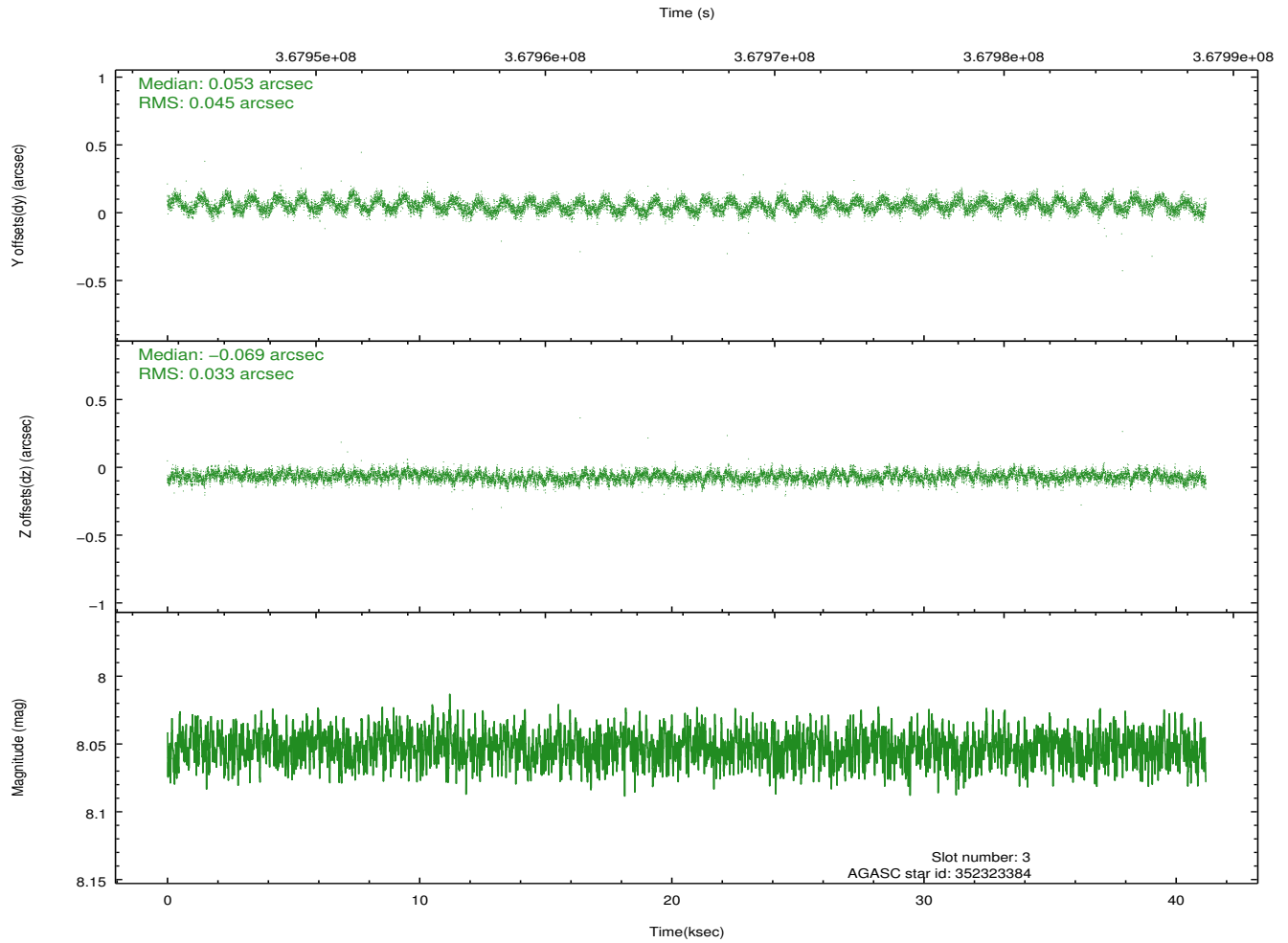
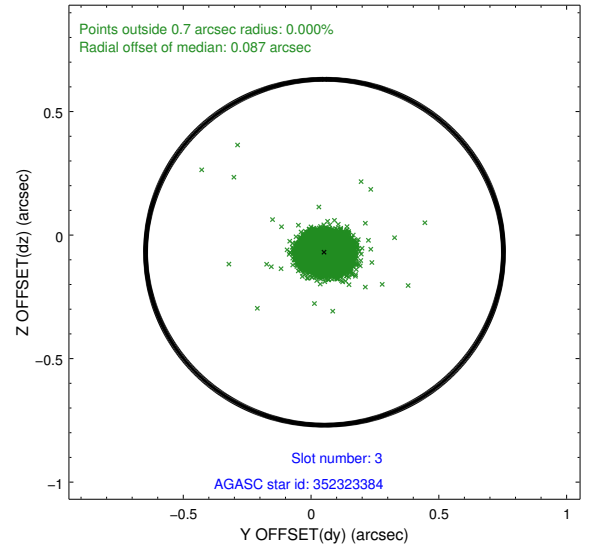
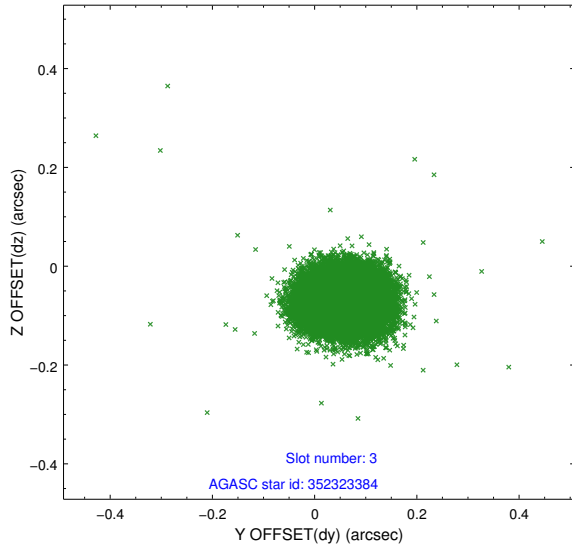


### Slot Statistics

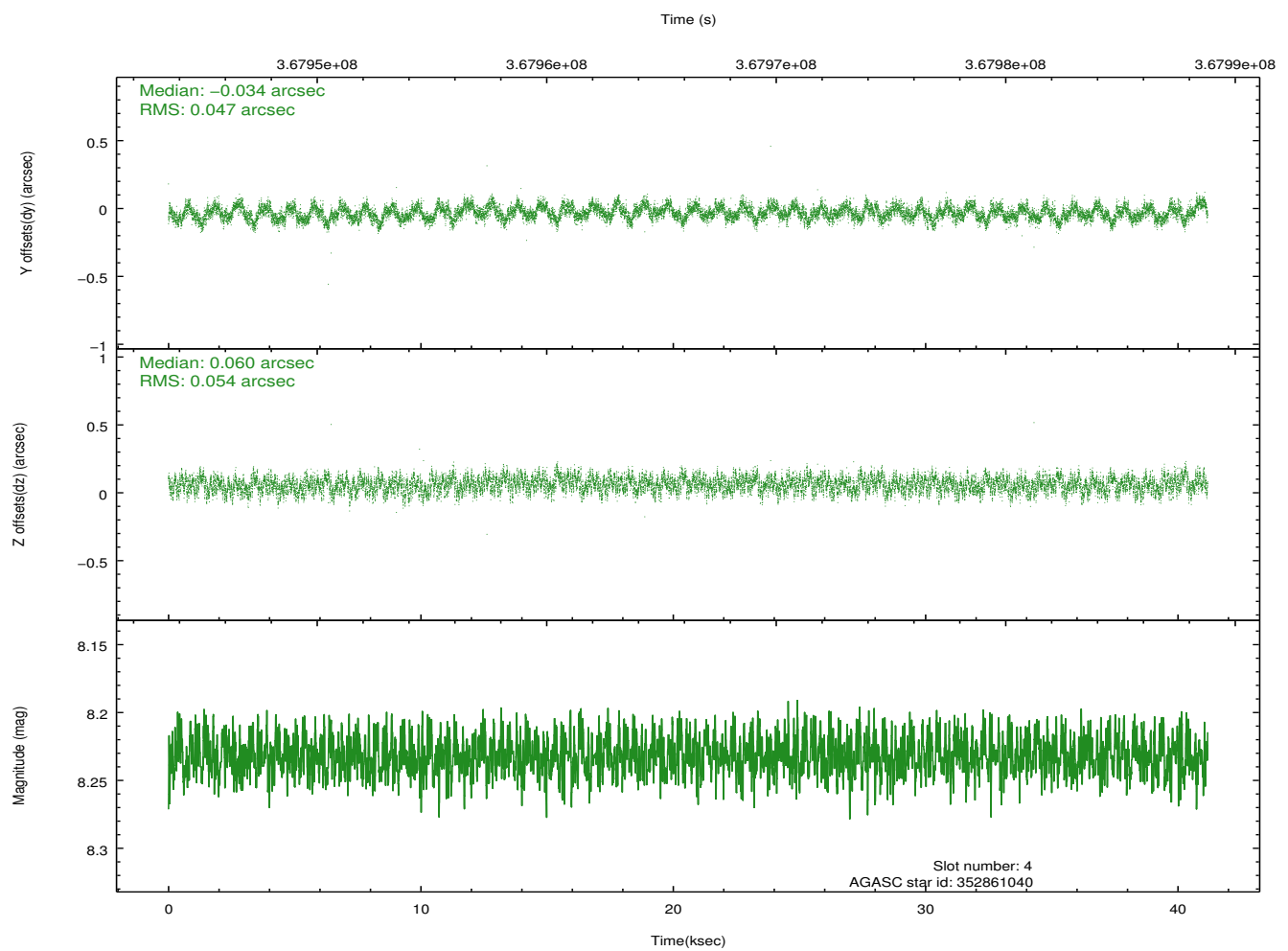
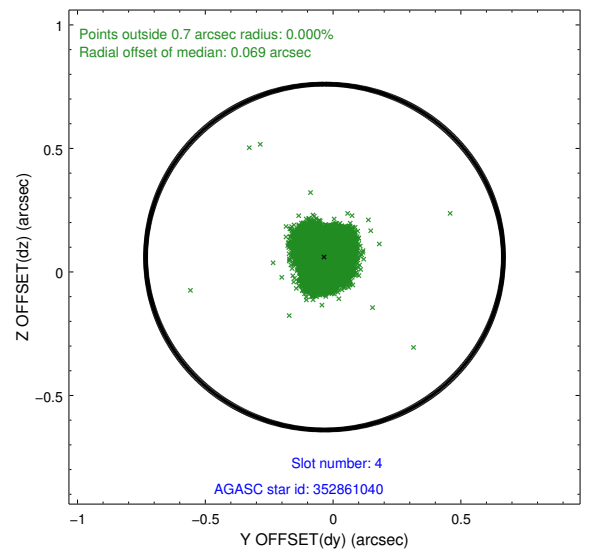
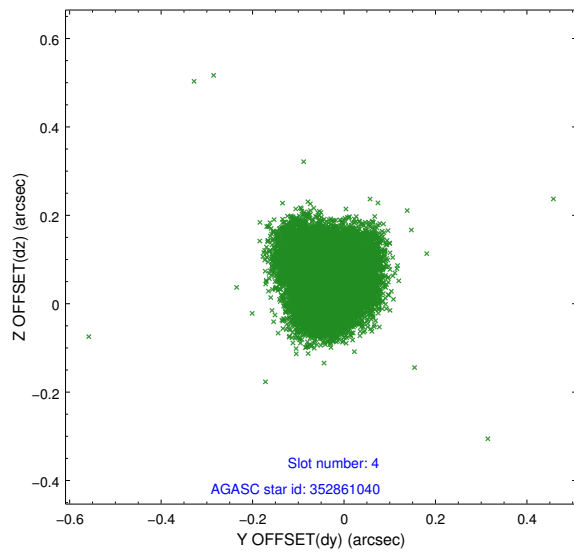
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	10044	-0.026	-0.041	0.017	0.036	0.000000	0.000000	-766.33	-1734.86
1	FID	ACIS-S-4	7.01	10043	0.145	0.023	0.026	0.052	0.000000	0.000000	2147.13	173.67
2	FID	ACIS-S-5	7.05	10043	-0.152	0.024	0.012	0.018	0.000000	0.000000	-1819.28	167.36
3	GUIDE	352323384	8.05	20085	0.053	-0.069	0.059	0.093	313.230110	31.809462	1999.01	833.93
4	GUIDE	352861040	8.23	20085	-0.034	0.060	0.077	0.120	313.769084	33.117869	-1970.39	-2184.42
5	GUIDE	352866152	8.85	20067	0.051	0.104	0.067	0.109	313.017994	32.458256	1237.56	-1466.89
6	GUIDE	352869944	7.48	20088	-0.044	0.021	0.062	0.100	313.966924	32.094645	-444.26	1221.37
7	GUIDE	352872344	6.77	20088	-0.031	-0.118	0.059	0.093	313.849074	32.689120	-1322.18	-763.04

## 2.4 Star Slots

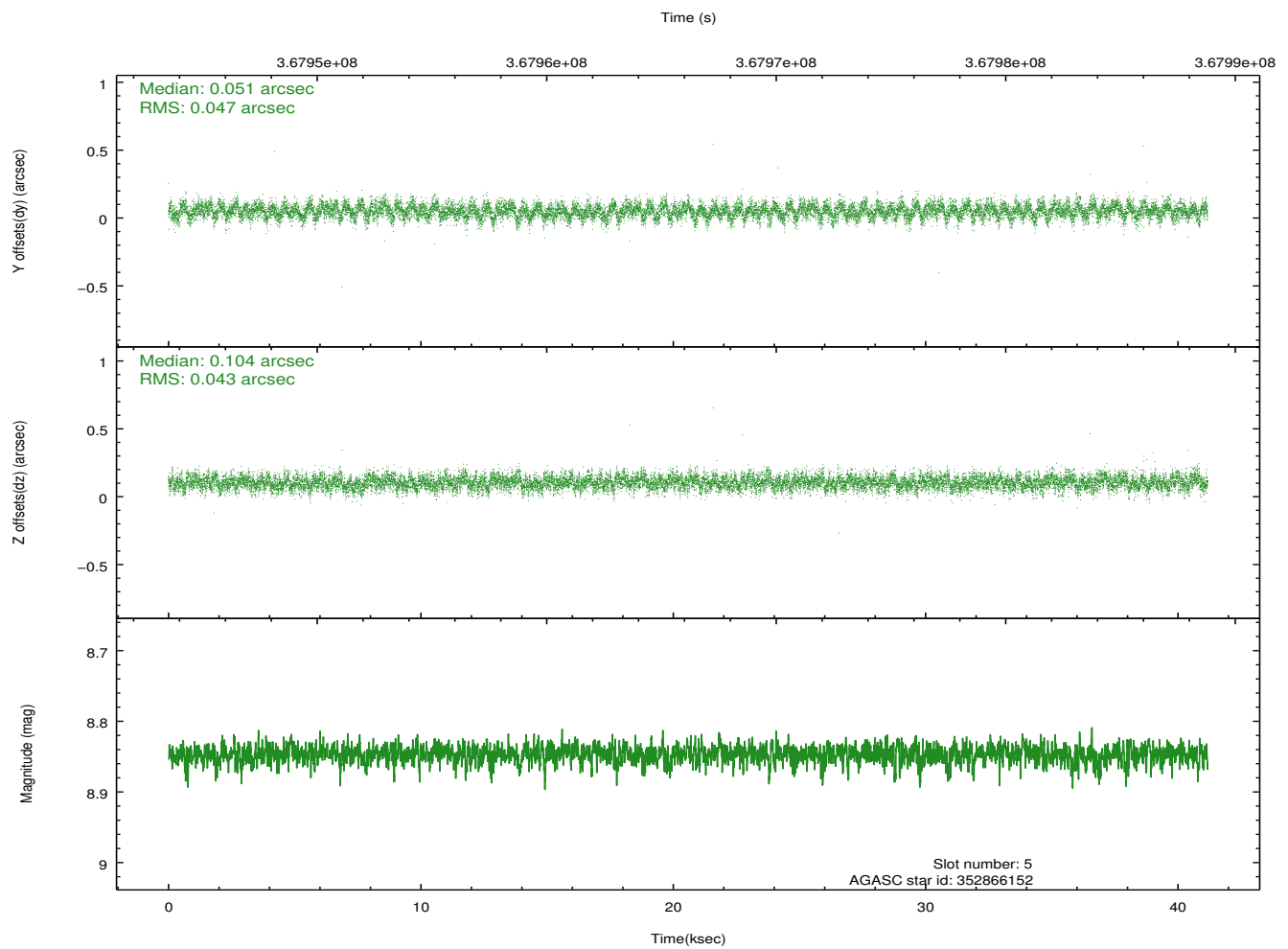
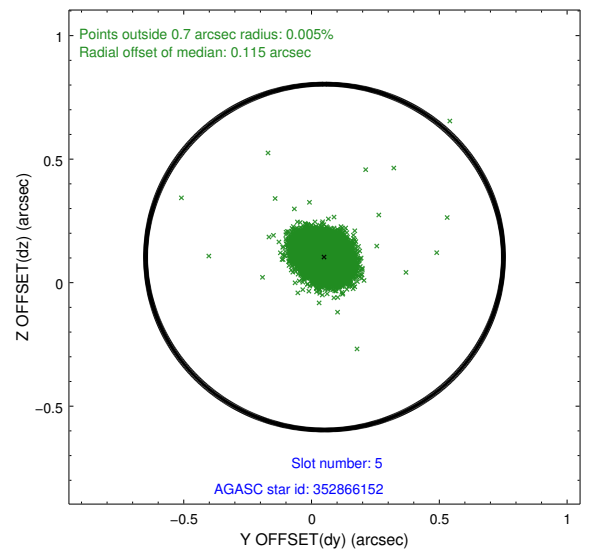
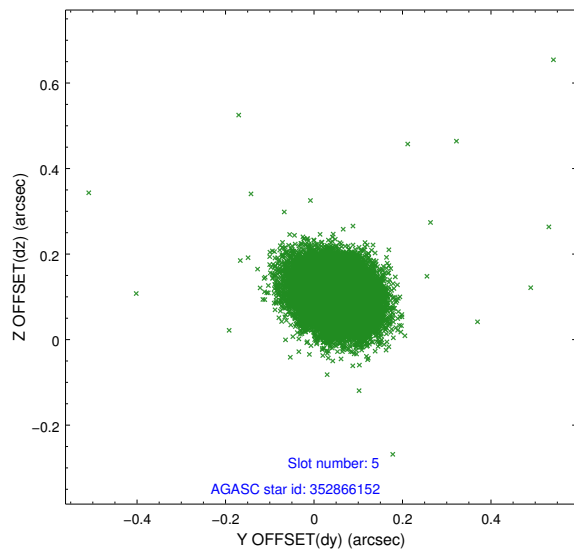
### 2.4.1 Slot 3



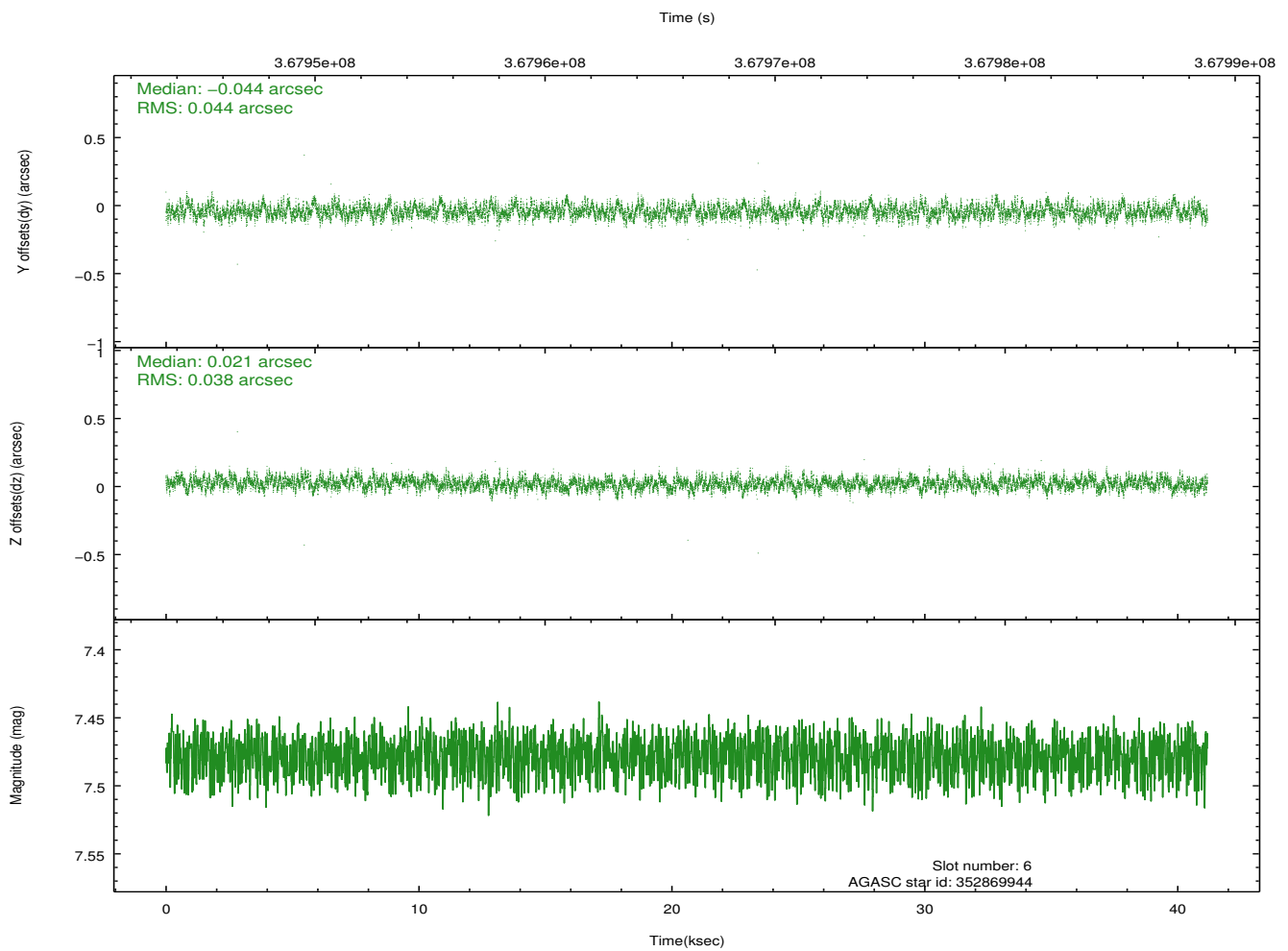
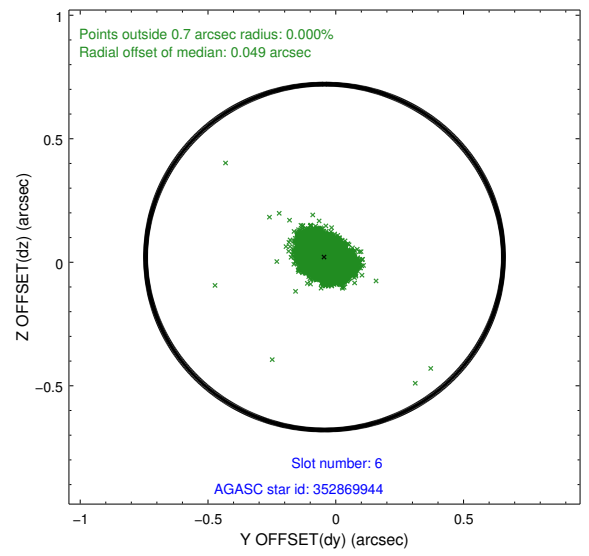
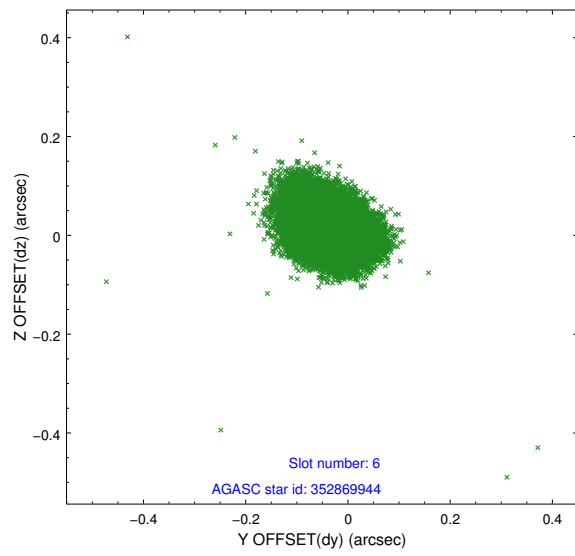
## 2.4.2 Slot 4



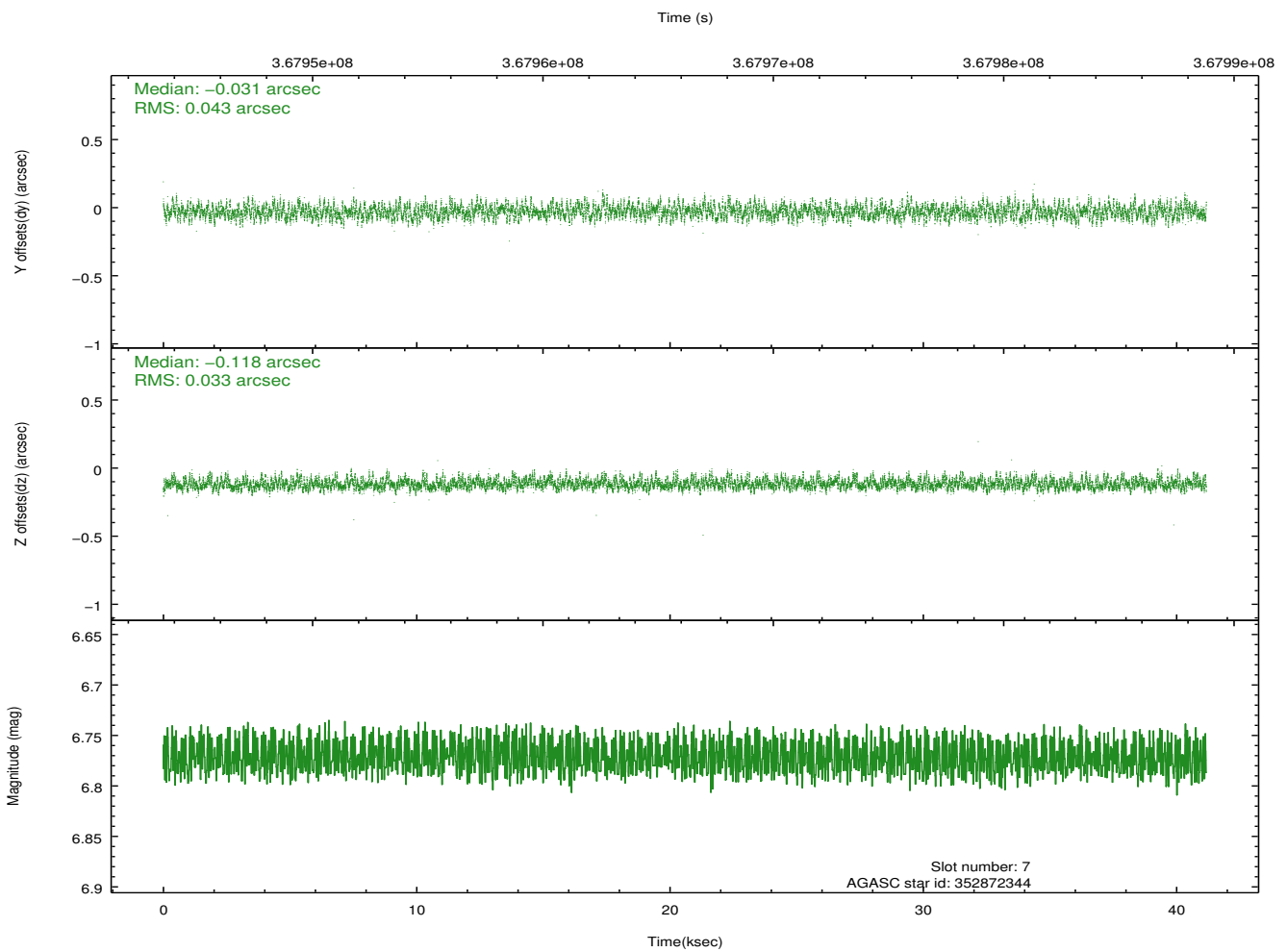
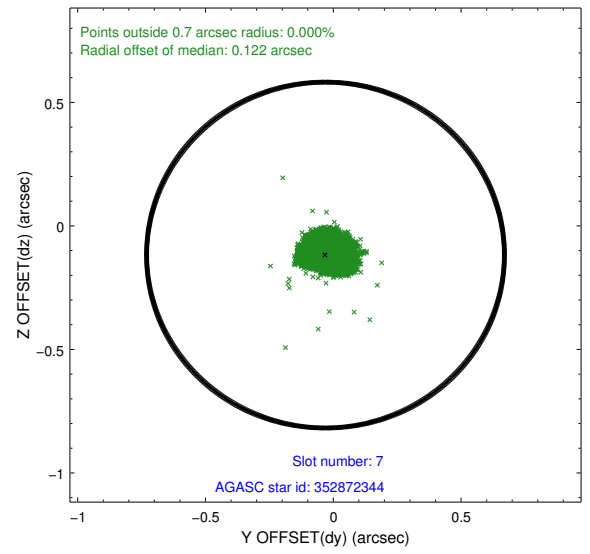
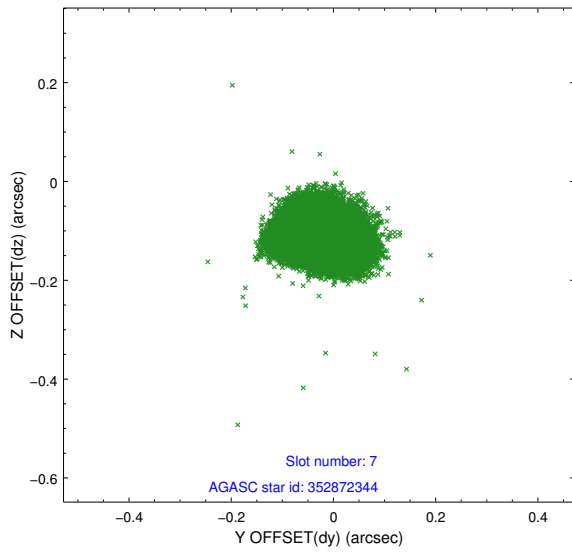
### 2.4.3 Slot 5



## 2.4.4 Slot 6

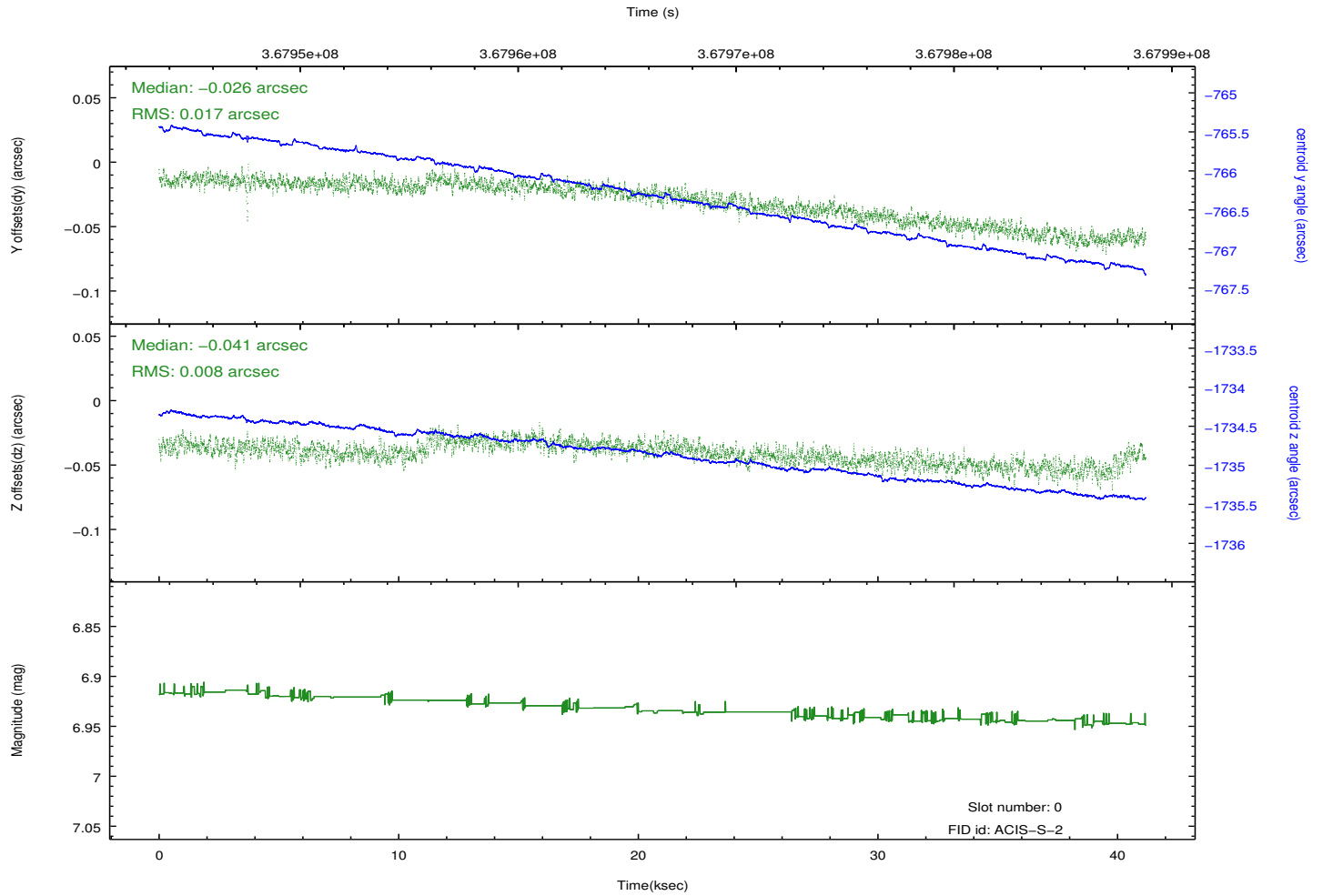
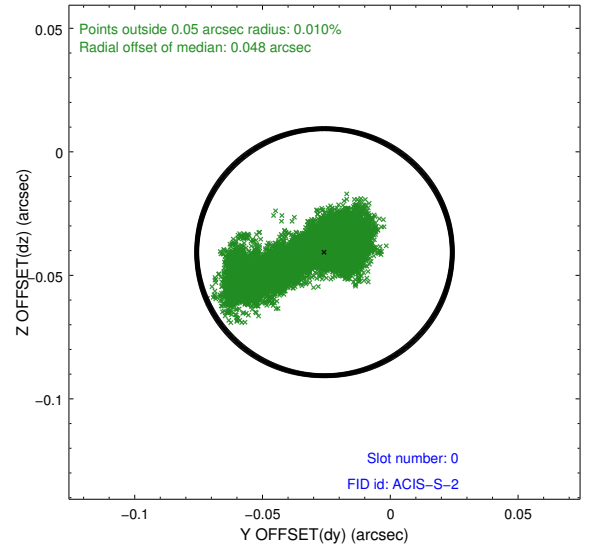
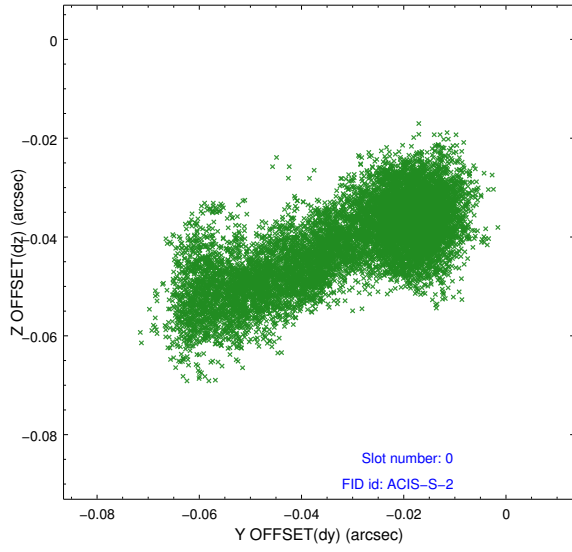


## 2.4.5 Slot 7

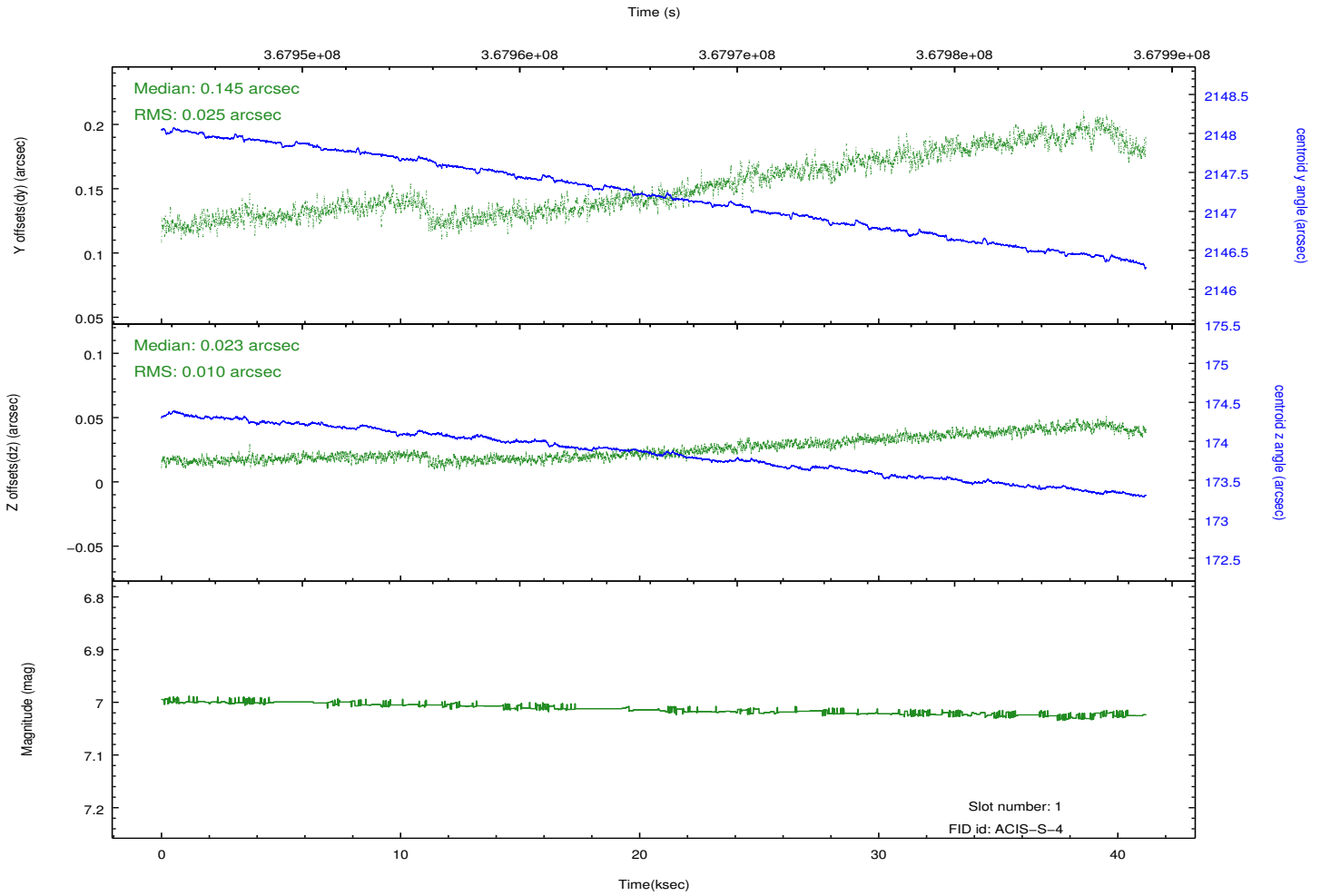
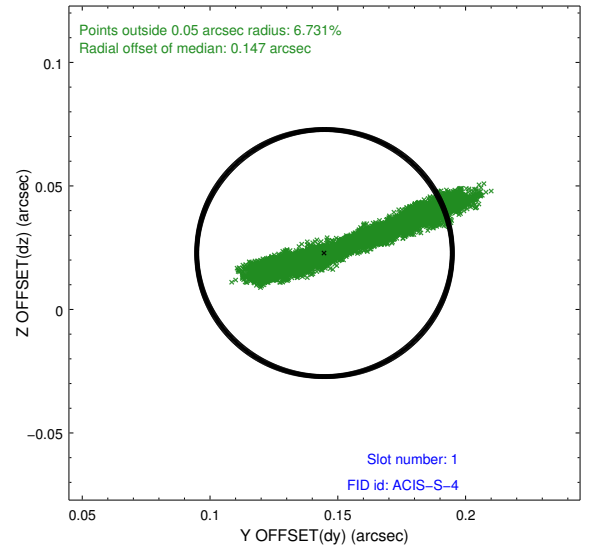
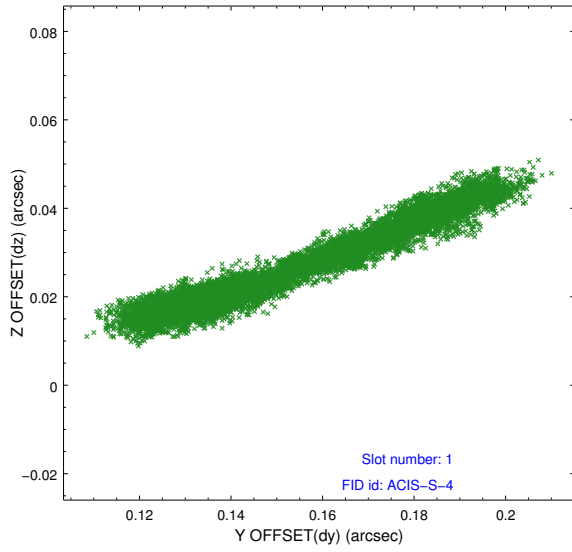


## 2.5 FID Slots

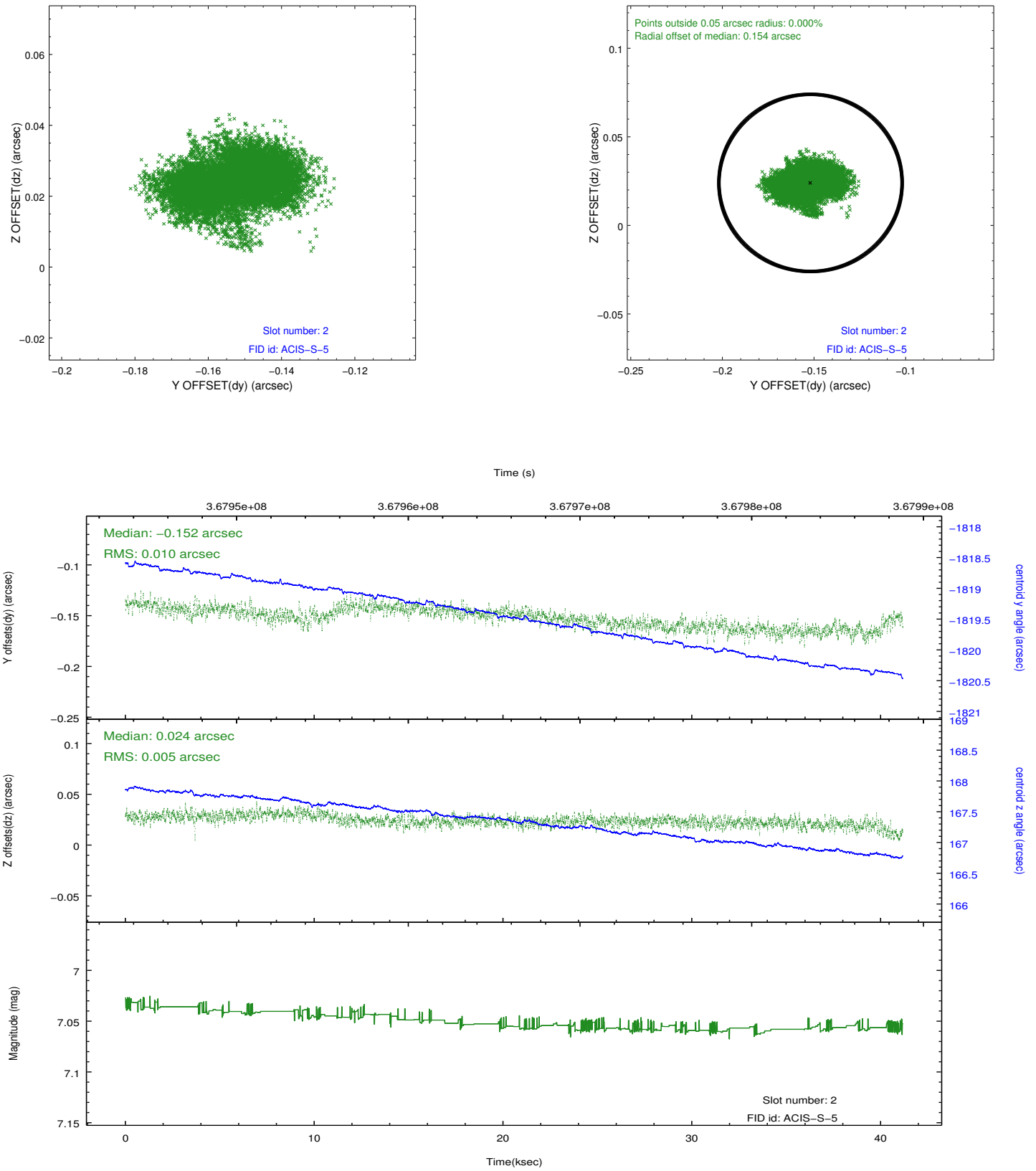
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.1743998

## A.2 Comments